

REMARKS

Claims 1, 5, 6, 10 and 14-65 are pending in the application. The Examiner's thoughtful consideration of the Applicants' last amendment and remarks is noted with appreciation.

Claims 16-65 have been rejected under 35 U.S.C. § 112, first paragraph, based on the written description requirement. As discussed in the Applicants' Supplemental Response of March 24, 2005, the Written Description Guidelines indicate that the requirement is satisfied through sufficient description of a representative number of species by disclosure of relevant, identifying characteristics, *i.e.*, structure or other physical and/or chemical properties, or by functional characteristics coupled with a known or disclosed correlation between function and structure. Example 9 of the Written Description Guidelines training materials relates to nucleic acid molecules that can hybridize to a reference sequence. However, the Official Action correctly points out that Example 9 specifically relates to nucleic acid molecules that hybridize under high stringency conditions.

In accordance with the Examiner's helpful comments, independent Claims 16, 19, 28, 38, 39, 40 and 50 have been amended to eliminate the claim recitations relating to low stringency conditions. Claim 16, for example, now recites a first nucleic acid fragment comprising SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50 or a fragment that will hybridize under high stringency conditions to a reference nucleic acid molecule that is precisely complementary to one of them. Similar amendments have been made to the remaining independent claims. The detailed descriptions of low stringency conditions have also been eliminated from Claims 58-65. Therefore, the claims are now analogous to and closely comparable to Example 9 of the written description guidelines.

As explained in more detail in the March 24 Supplemental Response, the defined structures of the identified sequences are believed to be correlated to the function of enhancing translation because of their putative ability to anneal to nucleotides 1023-1035 of the *E. coli* 16S rRNA. The ability to hybridize with 16S rRNA nucleotides 1023-1035 is directly and causally correlated to the fact that the identified sequences are complementary to the rRNA sequence. Thus, the definition of the genus of nucleotide acid fragments that will hybridize under high stringency conditions to a reference nucleic acid molecule that is precisely complementary to one of SEQ. ID NOs: 48-50 directly correlates structure with function. As such, it is respectfully

submitted that the Applicants have provided a clear correlation between function and structure, just as set forth in Example 9 of the written description guidelines. For these reasons, and for those more fully set forth in the March 24 Supplemental Response, it is respectfully requested that the rejection of Claims 16-65 under 35 U.S.C §112 be reconsidered and withdrawn.

Claims 1, 5, 6, 10, 14, 15 and 57 have been rejected as allegedly anticipated by Goldstein, Oppenheim '039 or Oppenheim '169. The Applicants acknowledge the Examiner's position that the transitional phrase "consisting essentially of" is equivalent to the phrase "comprising" absent a clear indication of what the basic and novel characteristics of the molecule are. Although the Applicants believe that the specification does include a clear indication of the basic and novel characteristics of these molecules, Claims 1 and 57 have been amended to expedite allowance of the application. Specifically, the transitional phrase "consisting essentially of" has been changed to "consisting of". By law, this transitional phrase excludes any element not specified in the claim. MPEP § 2111.03.

As explained in the March 24 Supplemental Response, each of Goldstein, Oppenheim '039 and Oppenheim '169 contain elements, such as a promoter, a protein coating region or other functional nucleotide sequences that would affect the basic nature of a nucleic acid molecule having only the nucleotides recited in the claims. Therefore, the cited references do not anticipate Claim 1, 57 or their dependent claims. Thus, it is respectfully requested that the rejections under 35 U.S.C. §102 based on Goldstein, Oppenheim '039 and Oppenheim '169 be reconsidered and withdrawn.

Claims 1, 5, 6, 10, 14, 15 and 57 have been rejected as allegedly anticipated by Inouye. The Applicants acknowledge the Examiner's indication that Inouye describes sequences that contain nucleotides 1-11, 56-117 and 123-135 of SEQ ID NO: 55 and those of SEQ ID NO:49. However, like the disclosures of Goldstein, Oppenheim '039 and Oppenheim '169, Inouye does not describe the claimed sequences in isolation. Nor does Inouya provide any suggestion of motivation to isolate them. Instead, Inouya merely indicates that the upstream regions of various *csp* genes can be fused with *lacZ*, and that those constructs can express β -galactosidase under cold shock conditions. Inouya does not appreciate the importance of the particular sequences of nucleotides 1-11, 56-117 and 123-135 of SEQ ID NO: 55 or those of SEQ ID NO:49 within the upstream region. As such, Inouya fails to mention these sequences in isolation, and fails to

provide any suggestion to isolate them. Because the sequences of Inouya include additional elements other than those presently claimed, and because Inouya does not provide any suggestion to isolate the claimed sequences, Inouya does not anticipate or render obvious Claims 1, 5, 6, 10, 14, 15 and 57. Therefore, it is respectfully requested that the rejections under 35 U.S.C. §102 based on Inouya be reconsidered and withdrawn.

Claims 16-49, 51, 54-56 and 58-63 have been rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite based on the term "derived from". By this term, what is meant is that the referenced fragment originates from a certain nucleic acid molecule. The term has been replaced throughout the claims with a recitation that the referenced fragment is identical to a sequence found in a certain nucleic acid molecule, or found in a cold-shock inducible gene. It is believed that the new recitations make the claims more clear, such that one skilled in the art would understand the metes and bounds of the claims. Therefore, it is respectfully requested that the rejection under U.S.C. §112, second paragraph, be reconsidered and withdrawn.

It is respectfully submitted that the application is now in condition for allowance, which action is earnestly solicited. If the Examiner believes that further minor amendments or correction as to matters of form will advance the application, the Examiner is invited to telephone the Applicants' undersigned representative.

Respectfully submitted,



T. Daniel Christenbury
Reg. No. 31,750

TDC:SAN:vbm
(215) 656-3381